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A NEW SPECIES OF *SAROTHRIAS* GROUVELLE FROM NORTHEAST INDIA

(COLEOPTERA; JACOBSONIIDAE)

INTRODUCTION – The hygrophytic forests in the northeastern India are believed to hold an immense diversity of insects as well as the beetle fauna, and efficient sampling devices give the opportunity to collect many curious and rare forms. This is reflected by the occurrence of the genus *Sarothrias*, the species of which are extremely rare and are known from the humid tropical areas only. *Sarothrias* Grouvelle, till date, contains 11 species distributed in the peninsular Australia and in the Pacific Islands, and one species in the south India. They are occasionally found from the rotting wood, leaf litter samples and only a little is known about their biology. At least five species are known from their holotypes only, and until 1978 the genus was represented by two species in five specimens. Since then, DAJOZ (1978), SLIPINSKI (1986), LÖBL & BURCKHARDT (1988), POGGI (1991) and SLIPINSKI & LÖBL (1995) added nine species. In the present paper a new species of this genus, from the eastern Himalayan State of Arunachal Pradesh, is described.

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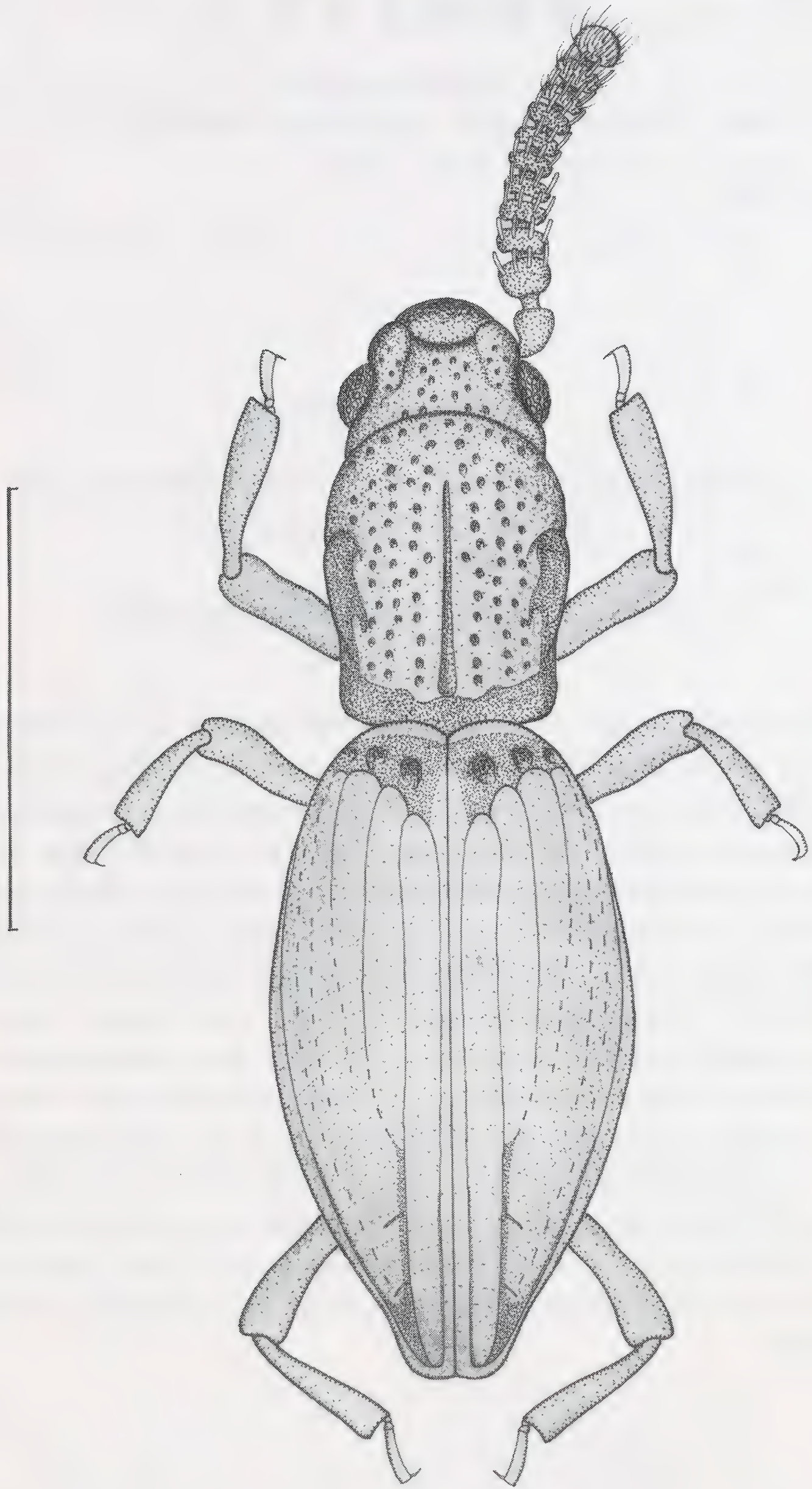


Fig. 1 - *Sarothrias hygrophilus* n. sp., Dorsal view (scale = 1.0 mm).

SYSTEMATICS

***Sarothrias hygrophilus* n. sp.**

General appearance (Fig. 1) elongated, markedly convex, deep brown, dorsal surface largely shiny except whitish secretory incrustations in parts of pronotum and elytra, short-thick antennae with whorls of squamiform setae on antennomeres, legs moderately long.

Head broader than long, clypeus little concave medially and rounded anteriorly, fronto-clypeal suture clearly visible, frons rather flat with sides raised; eyes moderately large, slightly shorter than half as long as head, coarsely faceted. Antenna moderately long, slightly longer than pronotum, scape slightly elongate, antennomeres 2-11 more or less transverse, each of antennomeres 2-10 with a whorl of squamiform setae, antennomeres 9-11 devoid of secretions, 9 and 10 with both normal and squamiform setae and 11 with only normal setae.

Prothorax 1.3x as long as wide, slightly wider near middle, front margin rounded and unbordered, front angles rounded, side margins unbordered and slightly protruding near middle; a shallow median groove on pronotum, extending from the anterior one-fifth to little above base; punctures on pronotum coarse, slightly elongate, separated by 1-2.5 diameter; median groove, punctures, side below protrusions and base of pronotum with secretions.

Elytra about 1.8x as long as wide and about 2.1x as long as prothorax, widest near middle and then narrowed posteriorly; basal bulge well developed, with subbasal band of secretion on which three subbasal depressions on each elytron, depressions gradually smaller from suture towards sides. Each elytron with six rows of punctures visible from above; rows 1, 2 and 7 impressed on their entire length, remaining rows consisting of separate punctures, either entirely or partially, row 1 parallel to suture and ending subapically, rows 2 and 3 joined near level of metacoxae, row 3 not impressed on entire length and represented by a few separate punctures before joining row 2, rows 4 and 5 represented by separate punctures and disappearing at apical half, row 6 represented by separate punctures and extending to apical one-tenth; row 7 entirely impressed, joins with the united row of 2 and 3, with secretions apically; 2-3 setae on united row of 2 and 3.

Ventral side: Metasternum with median impression gradually deepened towards metacoxae, impression with rounded sides and not delimited by lateral ridges.

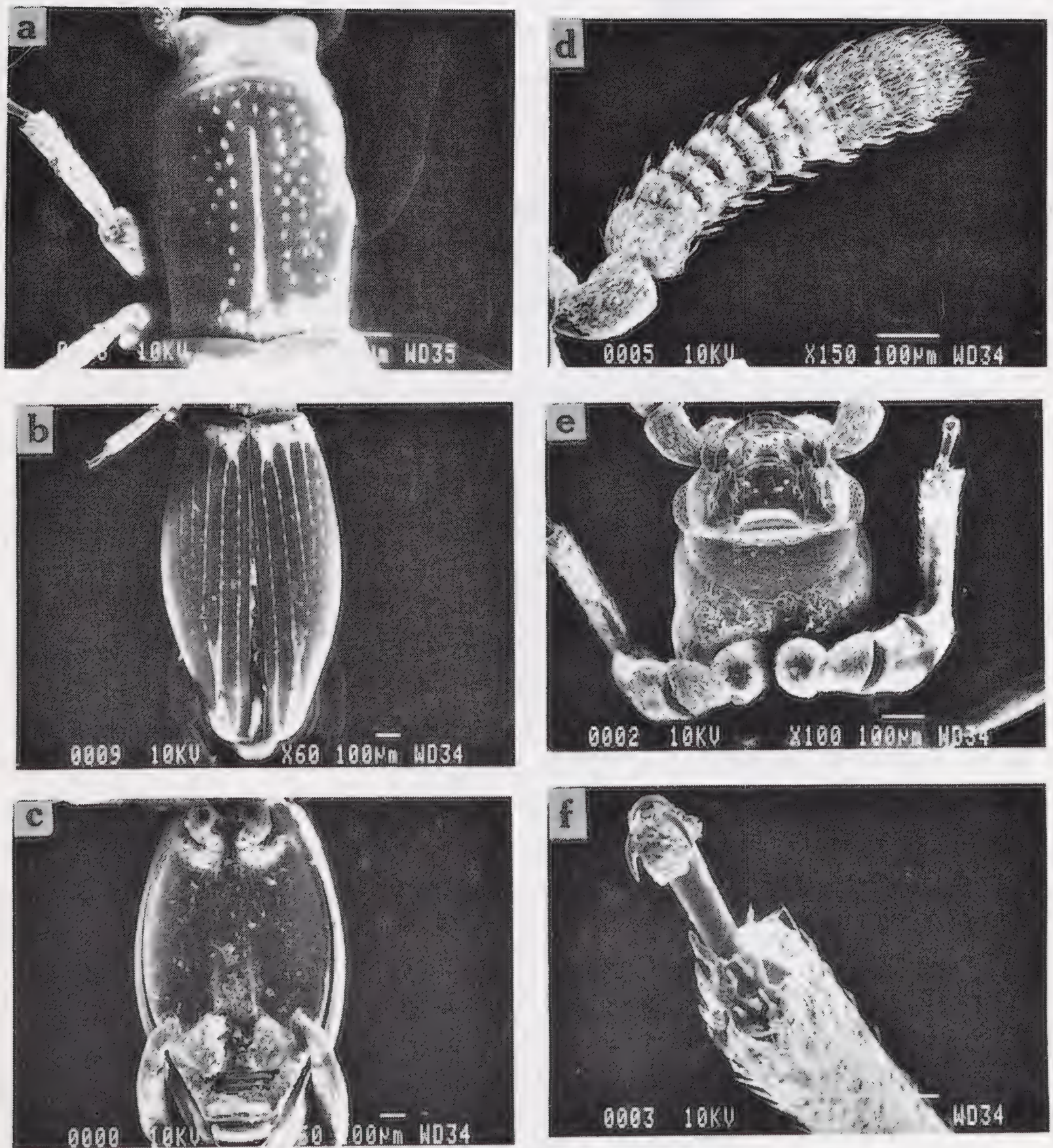


Fig. 2 - *Sarothrias hygrophilus* n. sp., Scanning electron micrographs: a, head and prothorax, dorsal view; b, elytra, dorsal view; c, meso-metathorax and abdomen, ventral view; d, left antenna, ventral view; e, head and prothorax, ventral view; f, tip of front leg, ventral view (scale = 100 µm).

MEASUREMENTS OF HOLOTYPE: Total length 2.50 mm, width of head across eyes 0.50 mm, length of antenna 0.96 mm, length and width of prothorax 0.74 mm and 0.56 mm, length and width of elytra 1.60 mm and 0.90 mm.

HOLOTYPE: INDIA: ARUNACHAL PRADESH, Lohit District, Zerogaon, 12 km. O-Hayuliang, 27.II.1990, T.K. Pal, *ex* rotting wood. PARATYPE: 1 ex., same data as holotype.

ECOLOGICAL NOTES: The adults were collected amidst other cucujoid beetles, termites, ants and isopods by shifting barks of a log rotten due to heavy precipitation and moisture near the peripheral area of a forest. The markedly sluggish *Sarothrias* adults were impoverished in number and were found in a cold and cloudy place located at an altitude of c. 650 m.

REMARKS: This species shows close resemblances with *S. morokanus* Poggi and *S. amabilis* Slipinski & Löbl but differs from both by its row 3 on elytron slightly interrupted just before joining row 2. Further, it differs from *S. morokanus* by rows 2 and 3 joined considerably before elytral apex and close to the level of metacoxae, larger eyes; and from *S. amabilis* by rows 2 and 3 joined much below the last puncture of row 5. This species is quite distinct from the lone Indian species, *S. indicus* Dajoz. The head and pronotum of *S. hygrophilus* are predominantly shiny and secretions on these parts are not extensive; patterns of rows and secretions on elytra are also entirely different from *S. indicus*.

KEY TO THE SPECIES OF *SAROTHRIAS* OF THE WORLD

1. Elytra entirely mat and covered by secretions, except a narrow shiny stripe along suture and which is devoid of secretions 2
- Elytra partly shiny, not completely covered by secretions 6
2. Terminal antennomere with a whorl of squamiform setae as on antennomeres 2-10 3
- Terminal antennomere devoid of a whorl of squamiform setae . . 4
3. Sides of pronotum with 2-3 squamiform setae; antennomere 2 twice as long as antennomere 3. Sabah
- Sides of pronotum devoid of setae; antennomere 2 about 1.4x as long as antennomere 3. Moluccas *audux* Slipinski et Löbl
- Sides of pronotum with 2-3 squamiform setae; antennomere 2 twice as long as antennomere 3. Sabah *Crowsoni* Löbl et Burckhardt

4. Epipleural keel of elytra extending more towards base than lateral keel 5
 - Epipleural and lateral keels of elytra ending at about the same level. New Britain *bournei* Slipinski
5. Median depression of metasternum indistinctly delimited, narrowing towards apex beyond middle; mat, covered by secretions. Seychelles *eximius* Grouvelle
 - Median depression on metasternum well delimited laterally, gradually narrowing towards apex; apical portion shiny, free from secretions. Fiji *fijianus* Löbl et Burckhardt
6. Secretions on head and pronotum strongly expanded, those on elytra forming longitudinal stripes which are separated by shiny stripes. South India *indicus* Dajoz
 - Dorsal surface of body predominantly shiny; pattern formed by secretions on elytra different 7
7. Pronotum with 2-3 squamiform setae on sides 8
 - Pronotum devoid of squamiform setae 9
8. Elytral secretions forming apical drop-shaped loop; antennomere 11 with squamiform setae. Sumatra *dimerus* (Heller)
 - Elytral secretions strongly reduced; antennomere 11 without squamiform setae. New Caledonia *pacificus* Slipinski et Löbl
9. Elytron with row 5 entirely deeply impressed, merged with row 4 apically. Queensland *lawrencei* Löbl et Burckhardt
 - Elytron with row 5 at most impressed near base and then continued as separate punctures, not joined with row 4 10
10. Elytron with row 3 feebly impressed at base and then continued as a weak row of separate punctures, not joined with row 2. Papua New Guinea *papuanus* Slipinski
 - Elytron with row 3 well impressed, joins with row 2, either as entire or broken stria 11
11. Rows 2 and 3 of elytron entirely impressed, join far before level of metacoxae and at level of last puncture of row 5. Malaysia
 *amabilis* Slipinski et Löbl

- Rows 2 and 3 of elytron join near the level of metacoxae or behind it, further below level of last puncture of row 5, row 3 completely or incompletely impressed 12
- 12. Row 3 of elytron entirely impressed before joining with row 2. New Guinea *morokanus* Poggi
- Row 3 of elytron impressed but interrupted just before joining with row 2, where it is represented by separate punctures
. *hygrophilus* n. sp.

SUMMARY

Jacobsoniidae are recorded from the northeast Indian State of Arunachal Pradesh with a new species, *Sarothrias hygrophilus*. A key to the species of *Sarothrias* Grouvelle of the World and an ecological note on the new species are provided.

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